

Assessment Project Management (PM) Roles Responsible for Abandonment of Construction Projects

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Abstract

The influence of project management on construction projects anywhere in the world cannot be underestimated as poor project management has grave effects on the stakeholders (clients, consultants, contractors and users) and the projects at large. The aim of this study is to investigate the level of awareness of project managers of their roles on construction projects and determine the deficient project management roles that lead to abandonment of construction projects. The study is survey in nature and uses both questionnaire and interview (confirmatory) to elicit necessary information for the study. The population of the study consists of abandoned building projects in Lagos, Nigeria. Sixty-six 66 questionnaires out of the 80 that were administered on project managers of abandoned building projects were returned and used for the study. Thus, the project managers of public and private abandoned projects were used for the study and the results of the study were analyzed with frequencies, percentages and mean item scores. The results of the study indicate that out of the 16 project management roles identified, project managers are very aware of two and aware of the remaining 14. Also, the study found that deficiency in 13 of the roles had high degrees of leading to project abandonment. The conclusion of the study is that project managers are aware of their roles on construction projects but the roles were not performed on those projects, thus leading to project abandonment. In view of this, the study further concludes that there would be some uninvestigated exogenous factors that are responsible for the non-performance of PM roles on those projects. Hence, the study recommends that further studies into why project managers fail to perform their roles on construction projects should be conducted. The study also recommends that project managers must engage in adequate planning, cost control and resource management to prevent project abandonment

Keywords: Project abandonment, Building projects, Project manager, Project management

INTRODUCTION

Over the years, project management has been widely recognized in the construction industry with its role being essential for successful project execution. The relevance of project management continues to grow with increase in complex projects and clients demanding that the triads (cost, time and quality) of project success be strictly achieved. Thus, there is need to include specialist management skills in project teams (Alitheia, 2010). Despite this however,

developers in Nigeria appear to have little knowledge about the roles of project managers in the construction industry, thus executing construction Projects without project managers and increasing the tally of failed projects. In Nigeria today, any construction related professional such as architect, builder, estate surveyor and valuer, quantity surveyor or engineer can be a project manager provided there is knowledge, experience of the industry and ability to lead and co-ordinate (Odusami, Omirin & Iyagba, 2003).

Abdul-Rahman, Othman, Zakaria and Yahya (2005) associated poor project management with ill-defined scope, poor project planning, breakdown in communication among construction stakeholders, setting unrealistic scope, schedules and budgets, design changes at various stages of work and lack of good project control. In a country like Nigeria where project management is barely practiced, and it is informal when practiced, there is need to investigate the awareness level of the so-called project managers and determine the roles that have the capacity to result in abandonment of construction projects. Hence, for effective project management, this study investigates the level of awareness of project managers about their roles on construction projects. It also examines the project management roles that could lead to project abandonment if they are not performed.

Literature Review

Concept of project and project management

Project was defined by Henachor (2012) as any scheme or part of a scheme for investing resources which can reasonably be analyzed and evaluated as an independent unit. Amirize (2004) described project as any planned or deliberate program of activities which can provide the support base, to complement efforts of individuals to enhance their well-being and solve their peculiar problems. The definition of Rae and Eden (2002) states that, project is an endeavor in which human materials and financial resources are organized in order to undertake a unique scope of work of given specification within the constraints of cost and time so as to achieve unitary, beneficial change through the delivery of quantified and qualitative objective. These definitions have common grounds in harnessing resources which include materials, finance and management. The management aspect of the resources is the engine room of a project as it co-ordinates and organizes other resources.

Furthermore, project management involves an array of carefully planned, interrelated and organized effort directed towards the accomplishment of project objectives (Young, 2006). This assertion was complemented by Adeniji (2011) when it was noted that, project management includes the supervision of project plan to ensure that there is accurate

and objective information on performance in relation to plan and mechanisms to implement necessary recovery actions. Alitheia (2010) puts it as the planning, control and coordination of project from conception to completion. It concerns identifying clients' objectives in terms of utility, function, cost, time and quality and the integration, monitoring and control of the contributions to project success. King (2013) explained that project management is the application of knowledge, skills, tools and techniques to project activities to meet project requirements. The definition of Munns and Bjeirmi (1996) is similar to that of Alitheia (2010) as it was noted that it involves the process of controlling the achievement of project objectives. Different adjectives have been used to define project management but they all virtually refer to the fact that project management deals with taking the leadership role on a project and ensuring that project succeeds. It is therefore evident that project management is the driver of projects' success.

The project manager is charged with the function of carrying out project management. A project manager is responsible for the management of financial, technical and schedule requirements of the project in such a way that project time, budget and technical quality meets contractual performance specifications (Benator, 2003). Oke and Gbadura (2010) explained that a project manager is ultimately responsible for the productivity of the people in the project team and is often a client's representative and has to determine and implement the exact needs of the client based on knowledge of the firm they are representing. The manager is saddled with the responsibility of controlling the processes that support construction such as purchasing, receiving and warehousing of the project materials to be incorporated into the completed project (Shaker, 2007). Thus, it can be said that project management is a leadership role on a construction project and a project manager is the leader on the project. He is like a single person wearing multiple hats and must be able to cope with change where they set the vision (Wadalker & Pimplikar, 2012).

The project manager's duties on construction, according to Shaker (2007) are:

1. **Pre-construction services support:** This include preparing a deliverable schedule relative to bidding practices, assisting the estimating department during planning review, preparing a preliminary construction schedule and delineating project requirement and general conditions.
2. **Administration of project:** This involves managing the owner's contract, communication of issues, coordination of activities and document control.
3. **Acquisitions required for the construction of project:** This involves requirement of scope, identifying items that have delivery dates that impact the schedule and purchasing of trades and materials.
4. **Management and scheduling of project:** This is about understanding manpower operations, materials applications, and building code issues.

5. **Cost control management:** This deals with issues resolution, managing and verifying subcontractor change orders and preparing cost documents for submission and resolutions.
6. **Project close-out:** This is about achieving substantial completion, aggressive punch list completion, submission of recorded drawing, maintenance manuals and warranties.

A project manager, according to Globerson (2002) is concerned with nine knowledge areas (duties) which include project plan development, scope planning and definition, time, cost, quality, organizational planning and staff acquisition, communication planning, risk (planning, identification, analysis and planning) and procurement. Ten skills were prescribed for project managers and they are team building skills, leadership skill, conflict resolution skill, technical skill, planning skill, organization skill, entrepreneur skill, administrative skill, managerial support building skill and allocation skill (Wadalkar & Pimplikar, 2012).

The descriptions of the skills of project managers are as follows: team building skills, leadership skill, conflict resolution skills, technical skills, planning skills, organizational skills, entrepreneurial skill, administrative skills, management support building skill, and resource allocation skill. However, project management skills were categorized into management (time, quality, contract, inventory, resource, safety, finance and stress management), technical (awareness of technology and techniques, ability to understand design, basic construction knowledge, basic computer skill and advance knowledge of PM tools), interpersonal skills (strong networking, issue resolution, ability to maintain site document, ability to articulate project objectives, communication skill, self-realization and equity) and human skill (strong task orientation, issue resolution, high energy level, knowledge of local language, adaptability and tranquility)

Role of project management on construction projects

Having described project management, it is important to identify the key roles of project management on construction projects. King (2013) stated that project management includes identification of requirements, establishment of clear and achievable objectives, balancing the competing demands for quality, scope, time, cost and adapting the specifications, plans and approach to the different concerns and expectations of the various stakeholders. It was further noted that project management is to ensure that projects are constructed to meet its intended purpose, quality, time, cost and safely.

Tomkins (2012) highlights nine critical roles of project management which include: delivering completed projects within time and budget constraints, developing budgeted schedules with the contract administrator and monitor projects during construction process, ensuring that final deliverables meet the quality expectations of stakeholder, high level of leadership and communication skills, ability to manage client issues, ability to manage local government approval process, ability to manage design process, ability to manage construction process, and ability to manage project risks.

Shaker (2007) was clear in mentioning that, project management objectives are goal setting, development of working system, managing and controlling projects, recognizing and using project controls, and cost accounting as it relates to estimating. Developing a working system involves the use of aggressive approach (used by project managers that understand the full scope of work and how it applies to drawings and specifications) and manageable system (the one that establishes a time table guaranteeing the performance of tasks sequenced to meet time limitations of the developed schedule which was the foundation of the general conditions). Management and control of projects is about planning, communicating and monitoring of projects.

According to Munns and BJeirmi (1996), the role of project management on construction projects includes defining the requirements of work, establishing the extent of work, allocation of the resources required, planning the execution of work, monitoring the progress of work and adjusting deviations from plan. Project planning is the process of identifying all the activities that are necessary to complete a project successfully (Oberlender, 2000). Closely related to planning is controlling which is done by measuring performance and correcting deviations from project plan. Project management functions may be classified as follows: integration of project plan; scope planning and definition; time definition, sequencing, estimation and development; cost planning, estimating and budgeting; quality planning, assurance and control; organizational planning and staff acquisition; communication planning; risk management; health and safety; globalization; and procurement (Globerson, 2002; King, 2013; Adeniji, 2011).

Research Methodology

The study adopts the survey research design method. The quantitative method was adopted for this study. The population of the study involves construction professionals in Lagos that have acted as project manager on construction projects. information was collected from responding professionals through the convenience sampling technique using a structured close-ended questionnaire. The respondents were required to base their response on construction projects fall into residential, industrial, institutional and recreational buildings. The questionnaire for the

study was answered by 66 construction professionals out of the 80 that were sent out. The data collected was analysed with SPSS using frequencies, sums, percentage and mean item score.

Data Analysis

Table 1 shows the general information of respondents and the projects used for this study. The profession of the respondents indicates that 21.2% were architects, 24.2% were builders, 13.6% were quantity surveyors, 25.8% were engineers and 15.2% were doing other things that are related to the built environment.

Table 1: General information of respondents and their organizations

Profession	Frequency	Percentage
Architecture	14	21.2
Building	16	24.2
Quantity surveying	9	13.6
Engineering	17	25.8
Others	10	15.2
Total	66	100
Work experience		
1-5	23	34.8
6-10	28	42.4
11-15	15	22.7
Total	66	100
Type of project		
Residential	46	69.7
Institutional	17	25.8
Others	3	4.5
Total	66	100
Gender		
Male	50	75.8
Female	16	24.2
Total	66	100
Respondents organization		
Sole proprietorship	17	25.8
Partnership	9	13.6
Private limited liability	30	45.5
Public limited liability	10	15.1
Total	66	100

Moreover, 34.8% have 1-5 years' work experience, 42.4% have 6-10 years' work experience and 22.7% have 11-15 years' work experience. Furthermore, 69.7% of the project managers have handled residential, 25.8% have handled institutional projects and 4.5% have handled other types of building projects. In addition, 25.8% of the respondents' organizations are sole proprietorship type of business, 13.6% are into partnership, 45.5% are private limited liability companies and 15.1% are public limited liability companies. This indicates that the organizations used for the study are fairly evenly distributed.

Table 2 describes the level of awareness of project managers of the roles they are expected to play on construction projects. Project managers are very aware that they have to plan work execution (4.50) and manage client issues (4.47).

Table 2: Level of awareness of project managers of their roles on construction projects

Project managers' roles	Mean	Level of Awareness	Rank
Planning of work execution	4.50	Very aware	1
Management of client issues	4.47	Very aware	2
Management of project environment	4.36	Aware	3
Management of safety	4.30	Aware	4
Management of approval processes	4.27	Aware	5
Management of construction processes	4.26	Aware	6
Develop budget schedule and monitor them	4.26	Aware	7
Management of design processes	4.23	Aware	8
Progress monitoring and plan adjustment	4.21	Aware	9
Management of risks	4.15	Aware	10
Deliver project within cost and time constraint	4.14	Aware	11
Ensure final deliverable meeting	4.12	Aware	12
Resource allocation and utilization	4.03	Aware	13
Definition of work requirements	4.00	Aware	14
Management of project finance	3.98	Aware	15
Management of claims	3.82	Aware	16

5 = Very Aware (VA), 4 = Aware (A), 3 = Averagely Aware (AA), 2= Poorly Aware (PA), 1 = Not Aware (NA)

They are aware that they have to manage project environment (4.36), manage safety (4.30), manage approval processes (4.27), manage construction processes (4.26), develop budget schedule and monitor them (4.26), manage design process (4.23), monitor progress and adjust plans (4.21), manage risks (4.15), deliver projects within cost and time constraints (4.14), ensure final deliverable meeting (4.12), resource allocation and utilization (4.03), define work requirements (4.00), manage project finance (3.98) and manage of claims (3.82). This indicates that project managers are aware of many of the roles they need to play on construction projects.

Table 3 depicts the project managers' roles that could lead to construction project abandonment if not properly carried out. The order of assessment of the roles that could lead to abandonment of construction projects are: management of client's issues (4.21), management of construction process (4.20), resource allocation and utilization (4.11), development of budget schedule and monitoring them (4.03), planning of work execution (3.97), management of risks (3.89) and delivery of project within cost and time (3.85), management of project finance (3.83), definition of work requirement (3.76), management of design process (3.73), progress monitoring and plan adjustment (3.70), management of approval processes (3.68), and management of claims (3.62) among others. Moreover, management of safety (3.15), management of project environment and ensuring final deliverable meeting (3.09) could lead to construction project abandonment to an average degree.

Table 3: Project managers' roles that could lead to project abandonment

Project managers' roles	Mean	Degree	Rank
Management of client issues	4.21	High degree	1
Management of construction processes	4.20	High degree	2
Resource allocation and utilization	4.11	High degree	3
Develop budget schedule and monitor them	4.03	High degree	4
Planning of work execution	3.97	High degree	5
Management of risks	3.89	High degree	6
Deliver project within cost and time constraint	3.85	High degree	7
Management of project finance	3.83	High degree	8
Definition of work requirements	3.76	High degree	9
Management of design processes	3.73	High degree	10
Progress monitoring and plan adjustment	3.70	High degree	11
Management of approval processes	3.68	High degree	12
Management of claims	3.62	High degree	13
Management of safety	3.15	Average degree	14
Management of project environment	3.11	Average degree	15
Ensure final deliverable meeting	3.09	Average degree	16

5 = Very High degree (VHD), 4 = High degree (HD), 3 = Average degree (AHD), 2 = Low degree (LD), 1 = Very low degree (VLD)

Conclusion

The study investigates the level of awareness of project managers of their roles on construction projects. The study also investigates the project management roles that could lead to project failure on construction projects if they are not performed. The findings of the study indicate that the respondents are aware of all of the roles of project managers on construction projects. This result is not expected because most of the professionals in the built environment that practice project management were admitted for postgraduate or professional studies. The respondents are very aware that as construction project managers, they need to plan work execution and manage client issues.

Moreover, they claim that non-management of client issues, management of construction process, resource allocation and utilization, developing budget schedule and monitoring them, planning of work execution, management of risks, delivering project within cost and time constraint, management of project finance, definition of work requirements, management of design process, progress monitoring and plan adjustment, management of approval processes and management of claims would to a high degree lead to construction project failure if not carried out or properly carried out. However, to an average degree, management of safety, management of project environment and ensuring final deliverable meeting are the project management roles that could lead to project management in the Nigerian construction industry.

Therefore, the conclusion of the study is that, professionals in the built environment are aware of the roles of project managers on construction projects. Further to this, the study concluded that, construction professionals agree to a high

degree that 13 out of the 16 project management roles investigated could lead to project failure (abandonment) if not carried out or properly carried out.

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